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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Clarence A. Green
Perman & Green
425 Post Road
Fairfield, CT 06430

EXAMINER

RYMAN, DANIEL J

ART UNIT PAPER NUMBER

2665

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,932	DALSGAARD, LARS	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7 and 16-32 is/are rejected.
- 7) ☒ Claim(s) 1,5,6 and 8-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2665

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 4, 7, and 16-28 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. The disclosure is objected to because of the following informalities: on page 11, in the portion added by amendment, "memory 532" should be "memory 504".

Appropriate correction is required.

Claim Objections

3. Claim 1 is objected to because of the following informalities: in line 15, "instead of a cell change attempt" should be "instead of attempting a cell change" since the current wording has "a cell change attempt" sent to the base station in place of a cell change failure message.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 16-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art.
6. Regarding claim 16, Applicant discloses as prior art a base station in a cellular radio system, comprising means for providing a service (GSM, GPRS) and means for receiving

Art Unit: 2665

signalling messages from a terminal as well as means for generating signalling messages and sending them to terminals (Fig. 3 and pg. 3, lines 4-34), characterized in that it further comprises means for receiving and processing information obtained from a terminal (Fig. 3 and pg. 3, lines 4-34), which information is arranged so as to convey to the base station the data of those neighbour cells known to the terminal (Fig. 3 and pg. 3, lines 4-34), wherein a cell known to the terminal is a cell for which the timing information of which is known to the terminal (Fig. 3 and pg. 3, lines 4-34).

7. Regarding claim 17, Applicant admits as prior art that said service is the GPRS data packet transmission service (Fig. 3 and pg. 3, lines 4-34).

8. Regarding claim 18, Applicant admits as prior art that said signalling messages are signalling messages of the GPRS data packet transmission service (Fig. 3 and pg. 3, lines 4-34).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 4, 7, 19-24, and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Tiedemann, Jr. et al. (USPN 5,940,761).

11. Regarding claim 1, Applicant admits as prior art a method for controlling a cell change in a service network, in which method a terminal performs neighbour cell measurements for a cell change (ref. 30) (pg. 3, lines 4-11), the network makes a cell change decision based on said

Art Unit: 2665

measurement results, network load and the terminal's service need (ref. 31,32) (Fig. 3 and pg. 3, lines 5-20), and the network sends to the terminal a cell change order instructing the terminal to switch over to a new cell (ref. 33) (Fig. 3 and pg. 3, lines 5-20), characterized in that if the new serving cell assigned to the terminal in the cell change order is a cell the timing information of which is unknown to the terminal after neighbour cell measurements, the cell change will not take place but the terminal will send to the base station a cell change failure message (ref. 35) (Fig. 3 and pg. 3, lines 20-34).

Applicant does not disclose that the terminal sends to the base station a cell change failure message instead of attempting a cell change. Tiedemann teaches, in a cellular communication system, having a mobile station determine if a handoff can be completed before attempting a handoff and then signaling the base station as to whether or not the handoff can be completed (col. 9, line 39-col. 10, line 37) in order to reduce the probability of dropping calls during handoff (col. 3, lines 19-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the terminal send to the base station a cell change failure message instead of attempting a cell change in order to reduce the probability of dropping calls during handoff.

12. Regarding claim 2, Applicant in view of Tiedemann discloses that the service network is a GPRS network (Applicant: pg. 3, lines 4-5).

13. Regarding claim 4, Applicant in view of Tiedemann discloses that to the cell change order PACKET_CELL_CHANGE_ORDER (43) an information element has been added which gives the terminal a right not to perform the cell change if the terminal does not know the timing information of the new cell assigned to it (Applicant: pg. 3, lines 20-34). Examiner notes that

Art Unit: 2665

Applicant admits as prior art that the terminal does not perform the cell change if it does not know the timing information.

14. Regarding claim 7, Applicant in view of Tiedemann discloses that the message sent by the terminal to the base station, indicating the non-execution of the cell change, is a "Packet_cell_change_failure" message (Applicant: pg. 3, lines 24-28).

15. Regarding claims 19 and 29, Applicant admits as prior art a terminal in a cellular radio system, equipped with means for connecting to a certain service (GSM, GPRS) (pg. 3, lines 4-5) and comprising means for receiving signalling messages from base stations and means for performing cell specific measurements in order to find a suitable serving cell (Fig. 3 and pg. 3, lines 4-11), characterized in that it is further equipped with means for determining the timing information of neighbour cells and means for sending a cell change failure message to the base station of the current cell in the case that the timing information of the base station of the new cell assigned to the terminal in a cell change order by the serving base station is unknown to the terminal (Fig. 3 and pg. 3, lines 4-34).

Applicant does not disclose that the terminal sends to the base station a cell change failure message instead of attempting a cell change. Tiedemann teaches, in a cellular communication system, having a mobile station determine if a handoff can be completed before attempting a handoff and then signaling the base station as to whether or not the handoff can be completed (col. 9, line 39-col. 10, line 37) in order to reduce the probability of dropping calls during handoff (col. 3, lines 19-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the terminal send to the base station a cell

Art Unit: 2665

change failure message instead of attempting a cell change in order to reduce the probability of dropping calls during handoff.

16. Regarding claim 20, Applicant in view of Tiedemann discloses that said certain service is the GPRS data packet transmission service (Applicant: pg. 3, lines 4-5).

17. Regarding claim 21, Applicant in view of Tiedemann discloses that said signalling messages are signalling messages of the GPRS data packet transmission service (Applicant: pg. 3, lines 4-5).

18. Regarding claim 22, Applicant admits as prior art a cellular radio system comprising base stations and associated cells and terminals, in which system: the base stations are equipped with means for conveying signalling messages between a base station and a terminal (Fig. 3 and pg. 3, lines 5-34), and the terminals are adapted so as to operate at a certain service level (GSM, GPRS) (pg. 3, lines 4-5) and to convey signalling messages between a terminal and a base station (Fig. 3 and pg. 3, lines 5-34), characterized in that it further comprises information, which is known to a terminal, about a set of neighbour cells of said terminal, the timing information of the base stations of which neighbour cells the terminal has determined, whereby said system is adapted so as to convey, after a cell change order addressed to the terminal, a cell change failure message from the terminal to the base station if the timing information of a base station of a new cell assigned to the terminal in the cell change order by the serving base station is unknown to the terminal (Fig. 3 and pg. 3, lines 5-34).

Applicant does not disclose that the terminal sends to the base station a cell change failure message instead of attempting a cell change. Tiedemann teaches, in a cellular communication system, having a mobile station determine if a handoff can be completed before

Art Unit: 2665

attempting a handoff and then signaling the base station as to whether or not the handoff can be completed (col. 9, line 39-col. 10, line 37) in order to reduce the probability of dropping calls during handoff (col. 3, lines 19-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the terminal send to the base station a cell change failure message instead of attempting a cell change in order to reduce the probability of dropping calls during handoff.

19. Regarding claim 23, Applicant in view of Tiedemann discloses that said certain service is the GPRS data packet transmission service (Applicant; pg. 3, lines 4-5).

20. Regarding claim 24, Applicant in view of Tiedemann discloses that said signaling messages are signaling messages of the GPRS data packet transmission service (Applicant: pg. 3, lines 4-5).

21. Regarding claims 26 and 27, Applicant in view of Tiedemann inherently discloses that a cell change failure message includes neighbour cell information (Applicant: Fig. 3 and pg. 3, lines 4-34). As broadly defined, "neighbour cell information" includes any type of information about the neighbour cells. Since the cell change failure message indicates that the neighbour cell cannot sustain a handover with the mobile unit, the cell change failure message includes "information" about the neighbour cell.

22. Regarding claim 28, Applicant in view of Tiedemann discloses that the cell change failure message includes for the purpose of selecting a new serving cell a set of neighbour cells determined by the terminal (Applicant: Fig. 3 and pg. 3, lines 4-34 and Tiedemann: col. 9, line 39-col. 10, line 37).

Art Unit: 2665

23. Regarding claim 30, Applicant in view of Tiedemann discloses that the cell change failure message sent by the terminal includes information on one or more neighbouring cells for which the terminal already has timing information (Applicant: Fig. 3 and pg. 3, lines 4-34 and Tiedemann: col. 9, line 39-col. 10, line 37).

24. Regarding claim 31, Applicant admits as prior art a method for controlling cell change comprising: a terminal receiving a cell change order from the network (Fig. 3 and pg. 3, lines 4-34); the terminal determining whether timing information related to a new cell identified in the cell change order is available in the terminal (Fig. 3 and pg. 3, lines 4-34); and if the timing information for the new cell terminal is available, the terminal makes a cell change attempt (Fig. 3 and pg. 3, lines 4-34); and if the timing information for the new cell is not available, the terminal sends a packet cell change failure message to the network (Fig. 3 and pg. 3, lines 4-34).

Applicant does not expressly disclose as prior art that the packet cell change failure message includes information on neighbouring cells for which the terminal already has timing information, wherein the network send another new cell change order based on the information included in the packet cell change failure message. Tiedemann teaches, in a cellular communication system, sending, by a mobile terminal, information on neighboring cells for which the terminal has information after receiving a handover request wherein the base station sends another new cell change order based on the information (col. 9, line 39-col. 10, line 37) in order to reduce the probability of dropping calls during handoff (col. 3, lines 19-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the packet cell change failure message information on neighbouring cells for which the terminal already has timing information, wherein the network send another new cell change

Art Unit: 2665

order based on the information included in the packet cell change failure message in order to reduce the probability of dropping calls during handoff.

25. Regarding claim 32, Applicant in view of Tiedemann discloses receiving the another new cell change order; determining if timing information is available in the terminal for a cell identified in the another new cell change order; if information is available, attempting a cell change; and testing the cell change attempt (Applicant: Fig. 3 and pg. 3, lines 4-34 and Tiedemann: col. 9, line 39-col. 10, line 37).

26. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Tiedemann, Jr. et al. (USPN 5,940,761) as applied to claim 1 above, and further in view of Anderson et al. (USPN 6,094,575).

27. Regarding claim 25, Applicant in view of Tiedemann does not expressly disclose that a cell change failure message includes a cause of the cell change failure. Anderson teaches, in a wireless communication system, including a cause of the cell change failure in a cell change failure message (handover failure message) (col. 19, lines 30-42; col. 29, lines 1-24; col. 48, lines 40-54; col. 81, lines 19-30; and col. 101, line 46-col. 102, line 12) where it is implicit that this is done in order to allow the system to determine why a handover failed. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cause of the cell change failure in a cell change failure message in order to allow the system to determine why a handover failed.

Allowable Subject Matter

28. Claims 5, 6, and 8-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

29. Regarding claims 5 and 6, the prior art does not disclose or fairly suggest that the information enabling the cancellation of the execution of the cell change order is transmitted in the claimed format.

30. Regarding claims 8-15, the prior art does not disclose or fairly suggest that the information sent by the terminal to the base station is transmitted to the base station in a GPRS service network in a signalling message containing the claimed elements.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ljung (USPN 6,078,813) see entire document which pertains to a handover method which limits the number of failed attempts.

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2665

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJR

Daniel J. Ryman
Examiner
Art Unit 2665



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600